

## **REMARKS**

### **I. INTRODUCTION**

Claims 4-6, 8-12, 15-16, and 30 are pending in the application. By this Amendment, claims 5-6, 8-12, and 30 are amended to more particularly recite the features of the method for extruding a peroxide crosslinked polymer tube. Claims 7, 13, and 17 are canceled without prejudice or disclaimer. Claims 1-3, 14, and 18-29 were previously canceled. In view of the foregoing amendments and following remarks, the Applicants respectfully submit that the application is in condition for allowance and request a notice stating the same. Reconsideration and withdrawal of the rejections are respectfully requested.

### **II. INFORMATION DISCLOSURE STATEMENTS**

In the Office Action dated August 21, 2007, a copy of the IDS submitted May 10, 2004 is initialed by the Examiner. Three of the cited documents, however, are still indicated as having not been considered, specifically, document nos. A4 (DE 2442230), A6 (DE 2220147), and A9 (German non-patent literature document by M.Jaecker). The Applicant respectfully requests that these documents be considered for the following reasons.

First, with regard to document nos. A4 and A9, the Examiner indicates "no translation or figures" next to document no. A4 and "no translation" next to document no. A9. A full translation of a foreign language document, however, is not required unless such translation is within the possession, custody, or control of, or is readily available to any individual designated in 37 C.F.R. 1.56. *See* 37 C.F.R. § 1.98(a)(3)(ii). As no such translation was available, pursuant to 37 C.F.R. § 1.98(a)(3)(i), a concise explanation of the relevance, as it is presently understood by the individual designated in 37 C.F.R. § 1.56(c) most knowledgeable about the content of the information, of each patent, publication, or other information listed that is not in the English language, is sufficient. Accordingly, a copy of an International Search Report (German Language) dated February 18, 2004 indicating the relevance of at least documents A4 and A9 was submitted with the May 10, 2004 IDS. The International Search Report (ISR) provides the respective degrees of relevance for each reference ("X", "Y", "A", etc.). A non-verified English translation of the pertinent portions of the ISR was also submitted on May 10, 2004. This is

believed to be sufficient for consideration of the documents. *See* M.P.E.P. § 609.04(a)(III). Therefore, consideration of document nos. A4 and A9 is respectfully requested.

Second, with regard to document no. A6, this document was cited and described in a German Office Action dated August 20, 2003. A copy of the German Office Action was submitted with the May 10, 2004 IDS and a non-verified English language translation of the German Office Action was later filed by the Applicant with the Amendment dated August 25, 2006. Document A6 was also cited and described in a second German Office Action dated January 11, 2006, a copy of which was filed in an IDS on August 25, 2006, along with a non-verified English translation of the German Office Action. As noted above, a full translation of a foreign language document is not required unless such translation is within the possession, custody, or control of, or is readily available to any individual designated in 37 C.F.R. 1.56. *See* 37 C.F.R. § 1.98(a)(3)(ii). Pursuant to 37 C.F.R. § 1.98(a)(3)(i), a concise explanation of the relevance, as it is presently understood by the individual designated in 37 C.F.R. § 1.56(c) most knowledgeable about the content of the information, of each patent, publication, or other information listed that is not in the English language, is sufficient. Accordingly, the Applicants respectfully request that document no. A6 be considered and listed in the "References Cited" portion of any patent that issues from this Application. Reconsideration is respectfully requested.

### **III. CLAIM OBJECTIONS**

On page 2 of the Office Action, claim 17 is objected to because the recitation of "'does not exceed' followed by a range is cumbersome." By this Amendment, claim 17 has been canceled and the subject matter recited therein has been incorporated into amended claim 30. Claim 30, as amended, now recites that "a melting pressure before entry to the extrusion die is approximately 700-1500 bar." The language is believed to more clearly recite the melting pressure range stated in original claim 17 and paragraph 0013 of the specification as filed. Accordingly, the objection is believed to be overcome. Reconsideration is respectfully requested.

### **IV. CLAIM REJECTIONS UNDER 35 U.S.C. § 103**

On pages 3-5 of the Office Action, claims 4-13, 15-17, and 30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,095,608 to Munsell in view of U.S.

Patent No. 5,804,116 to Schmid *et al.* ("Schmid") and U.S. Patent No. 3,331,100 to Gould and as evidenced by Rosato (Extruding Plastics – A Practical Processing Handbook, 1998) (hereinafter "Rosato"). The rejection is respectfully traversed. Nevertheless, in the interest of expediting prosecution, claims 5-6, 8-12, and 30 are hereby amended to more particularly recite the method for extruding a peroxide crosslinked polymer tube. Claims 7, 13, and 17 are canceled. Reconsideration and withdrawal of the rejection is respectfully requested.

Claim 30, as amended, recites:

A method for extruding a peroxide crosslinked polymer tube, comprising:

supplying a mixture to an extruder, the mixture comprising: a crosslinkable polymer, a crosslinking agent, and a stabilizing agent, wherein the mixture has a crystallite melting point and a crosslinking temperature;

heating the mixture in the extruder with an external heating unit to a temperature above the crystallite melting point but below the crosslinking temperature;

controlling the temperature of the mixture in the extruder with the external heating unit and an internal cooling unit;

continuously feeding the mixture from the extruder to an extrusion die, wherein a melting pressure before entry to the extrusion die is approximately 700-1500 bar;

heating the mixture in the extrusion die above the crosslinking temperature to effect at least a partial crosslinking of the mixture in the extrusion die, wherein the temperature (°C) of the mixture in the extrusion die is at least 15% above the crosslinking temperature (°C); and

discharging the mixture from the extrusion die, wherein the degree of crosslinking of the mixture on discharge from the extrusion die is above 60%.

Therefore, claim 30 has been amended to incorporate features previously recited in claims 7, 13, and 17, now canceled, and to more particularly recite the features of the method. The Office Action implicitly acknowledges that Munsell fails to teach or suggest the recited minimum temperature of the mixture in the extrusion die relative to the crosslinking temperature of the mixture. *See* Office Action, page 4, last full paragraph. Although the Office Action points to Munsell's recitation of polyethylene and various process temperatures in an example, it is not believed that the recited temperatures meet the features of claim 30 and the Office Action fails to explain otherwise. Moreover, the conclusory statement that "differences in temperature will not

support the patentability of subject matter encompassed by the prior art" (citing MPEP 2144.05) is not believed to establish a prima facie case of obviousness without further reasoning, particularly in view of the recitation of a minimum mixture temperature in the die based on the crosslinking temperature of the mixture and in combination with other features, e.g., a specific melting pressure range.

In addressing the features recited in previous claim 13, the Office Action states that "the combination employs the same claimed materials in the same claimed process" and that "the combined process would intrinsically achieve the same claimed effects and physical properties." Office Action, page 5, first full paragraph. The Applicant respectfully disagrees and submits that none of Munsell, Gould, Schmid, or Rosato, either alone or in combination, teach or suggest process conditions that would "intrinsically achieve" the feature of "the degree of crosslinking of the mixture on discharge from the extrusion die is above 60%" as recited in amended claim 30.

The Office Action also implicitly acknowledges that Munsell fails to teach the recited melting pressure range. Office Action, page 5, third full paragraph. Accordingly, the Office Action cites Schmid as teaching a pressure of 150 bar. This not only fails to meet the range of approximately 700-1500 bar recited in amended claim 30, but the cited pressure is set forth in the context of describing the pressure applied by an embossing tool with a grooved profile in a die press to obtain formation of flat plates from a tubular extrudate. *See* Schmid, column 8, line 59 – column 9, line 4. Thus, the citation to Schmid for purposes of teaching the recited melting pressure is misplaced.

In sum, none of the other cited documents including Gould, Schmid, and/or Rosato are believed to cure the deficiencies of Munsell. Therefore, the proposed combination fails to teach or suggest all the claim features. Reconsideration and withdrawal of the rejections are respectfully requested. Claims 4-6, 8-12, and 15-16 depend from claim 30 and are submitted as being allowable for at least the same reasons. Reconsideration and withdrawal of the rejections are respectfully requested.

## V. CONCLUSION

All of the stated objections and grounds of rejection are believed to have been properly traversed or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider

all presently outstanding rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is hereby invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,

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